THOMAS FORK IRRIGATION DIVERSION FISH PASSAGE PROJECTS

BACKGROUND

There are 3 major, full-spanning water diversion structures on the Thomas Fork of the Bear River. The Thomas Fork is located in SE Idaho and SW Wyoming. They are the Esche, Taylor, and Thomas Fork Diversions. They are all unscreened and pose varying degrees of challenges for upstream-migrating fish. When passage conditions allow, the river serves as a migrational corridor for Bonneville cutthroat trout. Idaho Department of Fish and Game has developed plans to address the problems at the Esche Diversion and our interagency group await a new landowner for the property to implement the plans. Design plans need to be developed for the Taylor and Thomas Fork Diversions.

TAYLOR DIVERSION

The Taylor Diversion is the furthest upstream structure. Structurally, it appears to be the easiest of the three structures to correct. The structure backs up head to the ditch and is at least a partial barrier to upstream-migrating fish. The diversion head is unscreened and fish kill of downstream-migrants has been documented. Nearly 50% of the downstream-migrating, post-spawn, fluvial Bonneville cutthroat trout tagged in the upper Thomas Fork were entrained in this ditch.

Looking downstream into ditch from head of ditch

Looking downstream at headgate to ditch

Looking downstream at headgate (left) and river (right)

Looking downstream into river channel through structure.

In river, looking upstream at diversion structure.

THOMAS FORK (MUMFORD) DIVERSION

The Thomas Fork Diversion, also known locally as the Mumford Diversion, has been previously undocumented by the region's Fisheries Biologists. It is the most challenging structure to address upstream passage concerns of the 3 diversions described here. Upstream migration is effectively blocked by the structure. Mortality to downstream-migrants in the ditch is likely.

Looking at entrance to ditch.

Looking downstream into ditch from head of ditch.

Diversion structure built across Thomas Fork.

At head of diversion ditch looking down river.

downstream end of diversion structure.

Looking upstream into right diversion culvert